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Learning Knowledge

Doctorate 2002 - 2008	Dokuz Eylul University, Fen Bilimleri Enstitüsü, Makine Teorisi Ve Dinamiği (Dr), Turkey
Postgraduate 1998 - 2002	Dokuz Eylul University, Fen Bilimleri Enstitüsü, Makine Teorisi Ve Dinamiği (YI) (Tezli), Turkey
Undergraduate 1994 - 1998	Dokuz Eylul University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Turkey

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, High frequency vibrations of thin plates, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Makine Teorisi Ve Dinamiği (Dr), 2008

Postgraduate, Acoustic design sensitivity analysis for vibrating bodies, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Makine Teorisi Ve Dinamiği (YI) (Tezli), 2002

Academic Titles / Tasks

Professor 2019 - Continues	Dokuz Eylul University, Mühendislik Fakültesi, Makina Mühendisliği Bölümü
Associate Professor 2014 - 2019	Dokuz Eylul University, Mühendislik Fakültesi, Makina Mühendisliği Bölümü

Scholarships

Bilim Adamı Destekleme, TÜBİTAK, 2019 - 2020

Marie Curie , European Commission, 2009 - 2011

Published journal articles indexed by SCI, SSCI, and AHCI

1. **Stochastic prediction of natural frequencies of laminated composite beams by using a high-order statistical moment based approach**
Kara M., SEÇGİN A., Baygun T., Akyol C. G.
COMPOSITE STRUCTURES, vol.290, 2022 (SCI-Expanded)
2. **Discrete singular convolution-polynomial chaos expansion method for free vibration analysis of non-uniform uncertain beams**
SEÇGİN A., Kara M., Ferguson N.
JOURNAL OF VIBRATION AND CONTROL, vol.28, no.9-10, pp.1165-1175, 2022 (SCI-Expanded)
3. **Discrete singular convolution method for modelling of waveguide interaction of beam-type structures with impedance boundaries**
Kara M., SEÇGİN A.
ENGINEERING STRUCTURES, vol.247, 2021 (SCI-Expanded)
4. **Sensitivity analysis of laminated composite plates with different orientations in low to high order modes**
Kara M., Guler S., Secgin A.
SMART MATERIALS AND STRUCTURES, vol.30, no.8, 2021 (SCI-Expanded)
5. **A stochastic model for the speed of leak noise propagation in plastic water pipes ?**
Scussel O., Secgin A., Brennan M. J., Muggleton J. M., Almeida F. C. L.
JOURNAL OF SOUND AND VIBRATION, vol.501, 2021 (SCI-Expanded)
6. **Discrete Singular Convolution Method for Acoustic Transmission Lines**
Kara M., Secgin A., Baygun T.
ACOUSTICS AUSTRALIA, vol.48, no.2, pp.271-285, 2020 (SCI-Expanded)
7. **The effects of material uncertainty on low-to high frequency vibrations of thin plates using a statistical moment based approach**
SEÇGİN A., Kara M.
MATERIALS RESEARCH EXPRESS, vol.6, no.6, 2019 (SCI-Expanded)
8. **Determination of effective medium parameters of an in-line cavity based acoustic metamaterials with visco-thermal losses**
SEÇGİN A., Baygun T.
MATERIALS RESEARCH EXPRESS, vol.6, no.6, 2019 (SCI-Expanded)
9. **Discrete singular convolution method for one-dimensional vibration and acoustics problems with impedance boundaries**
Kara M., SEÇGİN A.
JOURNAL OF SOUND AND VIBRATION, vol.446, pp.22-36, 2019 (SCI-Expanded)
10. **A modal impedance-based statistical energy analysis for vibro-acoustic analysis of complex systems**

having structural uncertainty

SEÇGİN A., Kara M., Ozankan A.

PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.233, no.6, pp.1972-1989, 2019 (SCI-Expanded)

11. **Stochastic Vibration Analyses of Laminated Composite Plates via a Statistical Moments-Based Methodology**

SEÇGİN A., Kara M.

JOURNAL OF VIBRATION ENGINEERING & TECHNOLOGIES, vol.7, no.1, pp.73-82, 2019 (SCI-Expanded)

12. **Mid and high frequency vibration analysis of line connected uncertain composite structures by using modal impedance based statistical energy analysis procedure**

SEÇGİN A., Kara M., GÜLER S.

JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.34, no.2, pp.728-738, 2019 (SCI-Expanded)

13. **Vibration bounding of uncertain thin beams by using an extreme value model based on statistical moments**

SEÇGİN A., Kara M.

JOURNAL OF VIBRATION AND CONTROL, vol.24, no.23, pp.5627-5641, 2018 (SCI-Expanded)

14. **A modal impedance technique for mid and high frequency analysis of an uncertain stiffened composite plate**

SEÇGİN A., Kara M., Ozankan A.

JOURNAL OF SOUND AND VIBRATION, vol.366, pp.396-406, 2016 (SCI-Expanded)

15. **Determinations of in-situ energy loss factors of point-connected composite plates**

SEÇGİN A., Guler S., Kara M.

COMPOSITES PART B-ENGINEERING, vol.87, pp.27-32, 2016 (SCI-Expanded)

16. **Modal and response bound predictions Of uncertain rectangular composite plates based on an extreme value model**

SEÇGİN A.

JOURNAL OF SOUND AND VIBRATION, vol.332, no.5, pp.1306-1323, 2013 (SCI-Expanded)

17. **Numerical determination of statistical energy analysis parameters of directly coupled composite plates using a modal-based approach**

SEÇGİN A.

JOURNAL OF SOUND AND VIBRATION, vol.332, no.2, pp.361-377, 2013 (SCI-Expanded)

18. **Extreme-Value-Based Statistical Bounding of Low, Mid, and High Frequency Responses of a Forced Plate With Random Boundary Conditions**

SEÇGİN A., Dunne J. F., Zoghaib L.

JOURNAL OF VIBRATION AND ACOUSTICS-TRANSACTIONS OF THE ASME, vol.134, no.2, 2012 (SCI-Expanded)

19. **An Efficient Sound Source Localization Technique via Boundary Element Method**

SEÇGİN A., Sarigul A. S.

VIBRATION AND STRUCTURAL ACOUSTICS ANALYSIS: CURRENT RESEARCH AND RELATED TECHNOLOGIES, pp.151-181, 2011 (SCI-Expanded)

20. **An efficient sound source determination process based on half-space boundary element method**

SEÇGİN A., SARIGÜL A. S.

INTERNATIONAL JOURNAL OF MECHANICS AND MATERIALS IN DESIGN, vol.6, no.1, pp.17-25, 2010 (SCI-Expanded)

21. **The Effects of Composite Plate Design Parameters on Linear Vibrations by Discrete Singular Convolution Method**

Seçgin A., Atas C., Sarigül A. S.

JOURNAL OF COMPOSITE MATERIALS, vol.43, no.24, pp.2963-2986, 2009 (SCI-Expanded)

22. **Sensitivity analysis of submerged arc welding process parameters**

KARAOĞLU S., SEÇGİN A.

JOURNAL OF MATERIALS PROCESSING TECHNOLOGY, vol.202, pp.500-507, 2008 (SCI-Expanded)

Articles Published in Other Journals

1. **İç Boşluklu Akustik Metamalzemelerin Homojenizasyonu ve İletim Kayıplarının Transfer Matris Metodu ile Belirlenmesi**
SEÇGİN A., Baygün T.
Deu Muhendislik Fakultesi Fen ve Muhendislik, vol.21, no.62, pp.449-459, 2019 (Peer-Reviewed Journal)
2. **İnce Bir Çubuğun Belirsiz Doğal Frekanslarının Çokterimli Kaos Açılımı ile Matematiksel Olarak Modellenmesi**
KARA M., SEÇGİN A.
Deu Muhendislik Fakultesi Fen ve Muhendislik, vol.20, no.60, pp.852-862, 2018 (Peer-Reviewed Journal)
3. **Monte-Carlo simülasyonsuz-Uç Değer Modelleme ile Kompozit Bir Plakanın Belirsiz Titreşim Sınırlarının Belirlenmesi**
KARA M., SEÇGİN A.
Deu Muhendislik Fakultesi Fen ve Muhendislik, vol.20, no.59, pp.509-523, 2018 (Peer-Reviewed Journal)
4. **Vibration response bound prediction of uncertain structures via an extreme value based modelling**
SEÇGİN A.
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.19, no.1, pp.15-23, 2013 (ESCI)

Books & Book Chapters

1. **Acoustic Design Sensitivity Analysis for Vibrating Bodies**
SEÇGİN A., SARIGÜL A. S.
Lambert Academic Publishing, İstanbul, 2010
2. **Vibration Analysis of Plates by Discrete Singular Convolution Method**
Seçgin A., Sarıgül A. S.
Lambert Academic Publishing, Saarbrücken, 2010

Refereed Congress / Symposium Publications in Proceedings

1. **On the Effect of Cellular Periodicity of Acoustic Transmission Line Metamaterials with Visco-thermal Effects**
Baygün T., SEÇGİN A.
International Conference on Engineering Technologies (ICENTE'21), Konya, Turkey, 18 November 2021
2. **Geometrik Belirsizliğe Sahip İnce Çubukların Çok Terimli Kaos Açılımı Temelli Ayrık Tekil Konvolüsyon Yöntemi İle Titreşim Analizi**
KARA M., SEÇGİN A.
19. Ulusal Makina Teorisi ve Sempozyumu, Antakya, Turkey, 4 - 06 September 2019, pp.30-37
3. **Low Speed Balancing Procedure of Spiral Rotors Used for Wastewater Purification**
AK A. F., SARIOĞLU A., KARA M., SEÇGİN A.
4th International Mediterranean Science and Engineering Congress-IMSEC 2019, Antalya, Turkey, 25 - 27 April 2019
4. **COMPARISON OF BARITE AND COLEMANITE LOADED POLYPROPYLENE COMPOSITES IN TERMS OF SOUND TRANSMISSION LOSS**
SARIKANAT M., ALTAY L., ÖZKAYA M., SEÇGİN A., İSBİLİR A., SEKİ Y.
3rd International Conference on Engineering Technology and Applied Sciences (ICETAS), Üsküp, Macedonia, 17 - 21 July 2018, pp.184
5. **The Effect of Various Minerals on Sound Absorption and Other Properties of Polypropylene**
SARIKANAT M., SEÇGİN A., UYSALMAN T., SEVİĞ TANTUĞ G., ÖZKAYA M., ATAGÜR M., ALTAY L., SEKİ Y.

8th International Advances in Applied Physics and Materials Science Congress Exhibition APMAS 2018, Muğla, Turkey, 24 - 30 April 2018, pp.146

6. **Selection of the Best Geometrical Parameters for a Truncated Pyramid Diffuser Based on Sound Transmission Loss under Air-Flow**
YAPANMIŞ B. E., SEÇGİN A., ERDOĞAN A., AKSOY İ. G.
International Advances Researches Engineering Congress, Osmaniye, Turkey, 16 - 18 November 2017, pp.41-45
7. **Empedans Tüpü ile Malzemelerin Farklı Geliş Açılarındaki Ses Yutma Katsayısının Belirlenmesi**
SEÇGİN A., KARA M., İHTİYAROĞLU Y., OZANKAN A.
18. Ulusal Makina Teorisi Sempozyumu, Trabzon, Turkey, 5 - 07 July 2017, pp.308-316
8. **Akustik Yalıtım Malzemelerinin Ses Yutma Katsayılarının Farklı Sıcaklık Koşulları Altındaki Değişiminin Deneyisel Olarak İncelenmesi**
SEÇGİN A., İHTİYAROĞLU Y., KARA M., OZANKAN A.
18. Ulusal Makina Teorisi Sempozyumu, Trabzon, Turkey, 5 - 07 July 2017, pp.317-324
9. **Extreme value modelling of natural frequencies of uncertain composite plate**
SEÇGİN A., KARA M., Ozankan A.
International Science Symposium, Turkey, 1 - 04 September 2016
10. **On the transmission loss of a hybrid muffler system**
SEÇGİN A., KARA M., Ozankan A., YAPANMIŞ B. E.
15th Anglo-French Physical Acoustics Conference, Londrina, Brazil, 13 - 15 January 2016
11. **Experimental Vibro Acoustic Modal Analysis of a Composite Tube**
SEÇGİN A., İHTİYAROĞLU Y., KARA M.
International Conference on Advances in Applied and Computational Mechanics, 5 - 07 August 2015
12. **Comparison of vibro acoustic performances of composite and brass tubes under acoustic excitation**
SEÇGİN A., İHTİYAROĞLU Y., YAPANMIŞ B. E.
International Conference on Advances in Applied and Computational Mechanics, 5 - 07 August 2015
13. **Uç Değer Tabanlı Modelleme ile Belirsiz Kompozit Bir Plakanın Deneyisel Titreşim Cevap Sınırlarının Tahmin Edilmesi**
SEÇGİN A., KARA M., OZANKAN A.
Uluslararası katılımlı 17. Makina Teorisi Sempozyumu, İzmir, Turkey, 14 - 17 June 2015, vol.1, pp.46-51
14. **Yapısal Akustik Sistemlerin İstatistiksel Enerji Analizi Parametrelerinin Sayısal Olarak Belirlenmesi**
SEÇGİN A., KARA M., KASABA M.
Uluslararası katılımlı 17. Makina Teorisi Sempozyumu, İzmir, Turkey, 14 - 17 June 2015, vol.1, pp.717-725
15. **Vibro Acoustic Response Bound Prediction of an Uncertain Structural Acoustic System**
SEÇGİN A., KARA M., KASABA M., OZANKAN A.
International Conference on Advances in Vibrations, 30 March - 01 April 2015, vol.1
16. **L-Tip Bağlı Kompozit Plakaların Deneyisel İstatistiksel Enerji Analizi**
Seçgin A., Kara M., Ozankan A., Sarıgül A. S.
16. Ulusal Makine Teorisi Sempozyumu, Erzurum, Turkey, 12 - 13 September 2013, pp.1-6
17. **Bir genişleme odasına sahip boru sisteminin akustik performans parametrelerinin belirlenmesi**
SEÇGİN A., Ozankan A., KARA M.
16. Ulusal Makine Teorisi Sempozyumu, Erzurum, Turkey, 12 - 13 September 2013, pp.6-11
18. **Preliminary results from the new multiwavelength aerosol lidar scanning system in Turkey**
Huseyinoglu M. F., Salaeva Z., SEÇGİN A., Allakhverdiev K. R.
19th International Symposium on High-Power Laser Systems and Applications (HPLS&A), İstanbul, Turkey, 10 - 14 September 2012, vol.8677
19. **The possibility of using remote sensing technology of lidars for monitoring ecosystem health by detecting habitat condition**
Huseyinoglu M. F., Salaeva Z., SEÇGİN A., Allakhverdiev S. R., Allakhverdiev K. R.
19th International Symposium on High-Power Laser Systems and Applications (HPLS&A), İstanbul, Turkey, 10 - 14 September 2012, vol.8677
20. **Statistical energy analysis of an uncertain vehicle floor using modal-based approaches**

SEÇGİN A., Zoghaib L., Xie G., Dunne L. W., Dunne J. F.

International Symposium on the Computational Modelling and Analysis of Vehicle Body Noise and Vibration, Brighton, United Kingdom, 27 - 28 March 2012, vol.1, pp.31-40

21. **Mid-frequency modelling of a car floor structure with hybrid method and SEA**

Xie G., Dunne L. W., SEÇGİN A., Zoghaib L., Dunne J. F.

International Symposium on the Computational Modelling and Analysis of Vehicle Body Noise and Vibration, Sussex, United Kingdom, 27 - 28 March 2012, vol.1, pp.11-20

22. **Katı ve Empedans Yüzeyler İçeren Yarım Bir Uzaydaki Ses Kaynaklarının Analizi**

Ertunç S., Seçgin A., Sarıgül A. S.

15. Ulusal Makine Teorisi Sempozyumu, Niğde, Turkey, 16 - 18 June 2011, pp.173-183

23. **High frequency FRF bound prediction for uncertain symmetrically-laminated composite plates**

SEÇGİN A., Dunne J. F., Zoghaib L.

International Conference on Uncertainty in Structural Dynamics (USD2010), Leuven, Belgium, 20 - 22 September 2010, pp.1-16

24. **Transfrequency FRF bounding of uncertain plate structures using extreme value theory and discrete singular convolution**

SEÇGİN A., Dunne J. F., Zoghaib L.

IV. European Conference on Computational Mechanics, Paris, France, 16 - 21 May 2010, pp.1-12

25. **Sound source localization and determination of a refrigerator by using half space boundary element method (BEM)**

Seçgin A., Ertunç S., Özütürk B., Yıldırım K., Sarıgül A. S.

3rd International Conference on Integrity, Reliability Failure, Porto, Portugal, 20 - 24 July 2009, pp.1-10

26. **Bir Buzdolabı Kompresörünün Deneyisel Modal Analizi**

Seçgin A., Ertunç S., Özütürk B., Yıldırım K., Sarıgül A. S.

14. Ulusal Makine Teorisi Sempozyumu, Güzelyurt, Cyprus (Kktc), 2 - 04 July 2009, pp.1-11

27. **Investigation of the effects of material and fiber orientation angles on the modal characteristics of thin FML composite plates by using discrete singular convolution (DSC) approach**

Seçgin A., Ataş C., Sarıgül A. S.

Ankara International Aerospace Conference, Ankara, Turkey, 18 - 20 September 2007, pp.1-11

28. **Ayrık Tekil Konvolüsyon (DSC) Yöntemi ile Yüksek Frekans Serbest Titreşim Analizi**

Seçgin A., Sarıgül A. S.

13. Ulusal Makina Teorisi Sempozyumu, Sivas, Turkey, 7 - 09 June 2007, vol.1, pp.159-167

29. **Yapısal-Akustik Bağlılığının Boşluk-Plaka Sistem Karakteristiğine Etkisi**

Arpaz Ö., Seçgin A., Sarıgül A. S.

13. Ulusal Makina Teorisi Sempozyumu, Sivas, Turkey, 7 - 09 June 2007, pp.573-582

30. **Geleneksel Vibro-akustik Yöntemlerin Yüksek Frekanslardaki Yetenek ve Doğruluklarının İncelenmesi ve Değerlendirilmesi**

Seçgin A., Sarıgül A. S.

13. Ulusal Makina Teorisi Sempozyumu, Sivas, Turkey, 7 - 09 June 2007, pp.601-613

31. **Titreşen Cisimlerin Yapısal-Akustik Analizi**

Sarıgül A. S., Seçgin A., Arpaz Ö.

12. Ulusal Makina Teorisi Sempozyumu, Kayseri, Turkey, 9 - 12 June 2005, vol.1, pp.235-246

32. **Bir Çamaşır Makinasının Akustik Tasarım Duyarlık Analizi**

Seçgin A., Sarıgül A. S.

11. Ulusal Makina Teorisi Sempozyumu, Ankara, Turkey, 4 - 06 September 2003, vol.2, pp.417-425

33. **Sınır Elemanları Metodu ile Akustik Tasarım Duyarlık Analizi**

SARIGÜL A. S., SEÇGİN A.

10. Ulusal Makina Teorisi Sempozyumu, Konya, Turkey, 1 - 03 September 2001, pp.38-47

Academic and Administrative Experience

2018 - 2018	Assistant Director of the Institute	Dokuz Eylul University
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Patent

SEÇGİN A., A Wheel Shroud Manufactures From Meta-material, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, 2020

Metrics

Publication: 68
Citation (WoS): 368
Citation (Scopus): 408
H-Index (WoS): 9
H-Index (Scopus): 9

Research Areas

Engineering and Technology